

WHAT IS CLAIMED IS:

1. A patch bag, comprising:

(A) a bag having an open top, a bottom seal, and a side-seal at a first side edge of the bag; and

(B) a patch which covers a seamless second side edge of the bag and at least a portion of both a first lay-flat side of the bag and a second lay-flat side of the bag.

2. The patch bag according to Claim 1, wherein the bag comprises a heat-shrinkable film and the patch comprises a heat-shrinkable film.

3. The patch bag according to Claim 1, wherein the bag comprises a first biaxially-oriented, heat-shrinkable film comprising an outside abuse layer, a core O₂-barrier layer, and an inside-sealant layer, and the patch comprises a second biaxially-oriented, heat-shrinkable film.

4. The patch bag according to Claim 3, wherein:
the outside abuse layer of the first film comprises at least one member selected from the group consisting of ethylene/alpha-olefin copolymer having a density of from about 0.85 to 0.95 g/cc, propylene/ethylene copolymer, polyamide, ethylene/vinyl acetate copolymer, ethylene/methyl acrylate copolymer, and ethylene/butyl acrylate copolymer;

the core O₂-barrier layer of the first film comprises at least one member selected from the group consisting of ethylene/vinyl alcohol copolymer, polyvinyl chloride, polyvinylidene chloride, polyamide, polyester, and polyacrylonitrile;

the inside-sealant layer of the first film comprises at least one member selected from the group consisting of thermoplastic polyolefin, thermoplastic polyamide, thermoplastic polyester, and thermoplastic polyvinyl chloride; and

the second biaxially-oriented, heat-shrinkable film comprises at least one member selected from the group consisting of ethylene/alpha-olefin copolymer having a density of from about 0.85 to 0.95

g/cc, propylene/ethylene copolymer, polyamide, ethylene/vinyl acetate copolymer, ethylene/methyl acrylate copolymer, and ethylene/butyl acrylate copolymer.

5. The patch bag according to Claim 1, wherein the bag comprises a first film and the patch comprises a second film, the side-seal is through the first film but not through the second film, and the end-seal is through the first film but not through the second film.

6. The patch bag according to Claim 1, wherein the patch is adhered to an outside surface of the bag.

7. The patch bag according to Claim 1, wherein the patch has a width of from about 20 to 200 percent, based on the width of the bag.

8. A process of making a patch bag, comprising:

- (A) adhering a patch film to an elongate flat film having a first side edge and a second side edge, whereby a laminated film article is produced;
- (B) folding the laminated film article along its length, whereby a folded, laminated article is formed which has a seamless folded side edge along a fold line thereof;
- (C) making a first seal by sealing the folded, laminated article to itself, the first seal being along a length of the folded, laminated article, the first seal being spaced from the folded side edge of the folded, laminated article;
- (D) making a second seal by sealing the folded, laminated article to itself by sealing across the folded, laminated article, whereby a sealed laminated article is formed; and
- (E) cutting across and through the sealed laminated article below the second seal, whereby an L-seal patch bag is produced.

9. The process according to Claim 8, wherein the patch is adhered to an outside surface of a bag formed from the sealing of the elongate flat film to itself.

10. The process according to Claim 8, wherein the patches have a width of from about 20 to 200 percent, based on a width of the L-seal patch bag.

11. The process according to Claim 8, wherein:

(a) the elongate flat film has a substantially uniform width; and

(b) the folding is carried out at a centerline running a length of the elongate flat film, so that the first side edge of the elongate flat film and the second side edge of the elongate flat film are placed next to one another, whereby a folded, laminated article is formed which has a seamless folded edge formed along the centerline of the elongate flat film.

12. The process according to Claim 11, wherein the elongate flat film is prepared by slitting a tubing along its length whereby a slit tubing is produced, followed by opening the slit tubing up to produce the elongate flat film.

13. The process according to Claim 11, wherein a plurality of discrete film patches are adhered to the elongate flat film, the film patches being adhered across the elongate flat film at intervals to form the laminated film article, the patches covering intervals of a seamless folded edge of the elongate flat film.

14. A process of making a patch bag, comprising:

(A) adhering a patch film to an elongate flat film having a first side edge and a second side edge, whereby a laminated film article is produced;

(B) folding the laminated film article along its length, whereby a folded, laminated article is formed which has a seamless folded edge along a fold line thereof;

(C) sealing the folded, laminated article to itself by making a plurality of side-seals across the folded, laminated article;

(D) cutting across the folded, laminated film outward of the side-seals, whereby a side-seal patch bag is produced; and

wherein the folding, sealing, and cutting are carried out so that the patch film covers a seamless bottom edge of the side-seal patch bag.

15. The process according to Claim 14, wherein:

(a) the flat film has a substantially uniform width;

(b) the folding is carried out at a centerline running a length of the elongate flat film, so that the first side edge of the elongate flat film and the second side edge of the elongate flat film are placed next to one another; and

(c) the seamless folded edge is covered by the patch.

16. The process according to Claim 14, wherein:

(a) the elongate flat film has a substantially uniform width; and

(b) the folding is carried out along a line parallel to a machine direction of the elongate flat film, but offset from a centerline by a distance of from about 0.1 inch to 2 inches, whereby a folded, laminated article is formed, the folded, laminated article having a seamless folded edge on a first side edge thereof, and offset lips on a second side edge thereof.

17. The process according to Claim 14, wherein a plurality of discrete film patches are adhered

to the elongate flat film, the film patches being adhered across the elongate flat film at intervals relative to one another to form the laminated film article;

Sub 18. A patch bag, comprising:

- (A) a bag having an open top, a bottom seal, a first lay-flat side, a second lay-flat side, a seamless first side edge, and a seamless second side edge;
- (B) a patch covering:
- (i) across an entirety of a width of the first lay-flat side of the bag;
 - (ii) the seamless first side edge; and
 - (iii) the seamless second side edge; and
- (C) a backseamed seal in the second lay-flat side of the bag, the backseamed seal running a length of the bag.

19. A process of making a patch bag, comprising:

- (A) adhering a patch film to an elongate flat film having a first side edge and a second side edge, whereby a laminated film article is produced;
- (B) folding the laminated film article at two separate folds along its length, so that a folded, laminated article is formed which has a first lay-flat side, two seamless side edges, and a second lay-flat side containing two overlapping film regions;
- (C) making a first seal by sealing the overlapping film regions to one another along the length of the folded, laminated article;
- (D) making a second seal by sealing the folded, laminated article to itself by sealing across an entirety of the folded, laminated article, whereby a sealed laminated article is formed; and
- (E) cutting across and through the sealed laminated article below the second seal, whereby a backseamed patch bag is produced.

Sub 20 20. A patch bag, comprising:

- (A) a bag having an open top, a first side-seal, a second side-seal, and a seamless bottom edge;
- and
- (B) a single patch which covers the seamless bottom edge of the bag, at least a portion of an outside surface of a first lay-flat side of the bag, and at least a portion of an outside surface of a second lay-flat side of the bag, the single patch having a length of from about 101 to 200 percent of a length of the bag.

21. A process of making a patch bag, comprising:

- (A) adhering a patch film to an elongate flat film which has a first side edge and a second side edge, whereby a laminated film article is produced;
- (B) folding the laminated film article transverse to its length, the folding being in a region of the laminated film article in which the patch film is adhered to the elongate flat film, whereby a folded, laminated article is formed which has a seamless folded transverse bottom edge;
- (C) sealing the folded, laminated article to itself by making a first seal along the first side edge and a second seal along the second side edge, whereby the elongated flat film becomes a sealed article; and
- (D) cutting across and through the laminated film article at a location above the bottom edge, whereby a side-seal patch bag is produced; and

wherein the folding, sealing, and cutting are carried out so that the patch film covers a seamless bottom edge of the folded elongate film, and the patch film is adhered to the outside surface of the sealed article.

